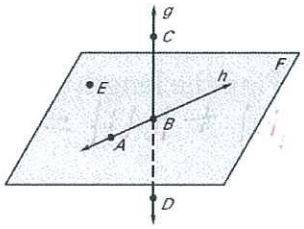
Name: _____ TP: _____

Form A
HW#4: Quiz Review
Due Date: Wednesday, Sept. 4th

Failure to show work on all problems or use complete sentences will result in a LaSalle.
Do you know...

Foundations of Geometry?

Score _ / 4



1. Which points are coplanar? "co" = together

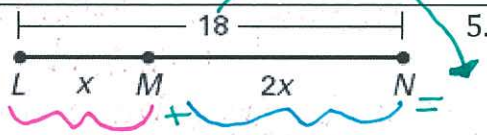
2. Give two names for line *h*.

3. Name two points that are not collinear.

4. True or False: Points A, B, and F are coplanar. *Explain*! (Write 1 sentence WHY.)

Line Segments?

Score _ / 2



5. Find x.

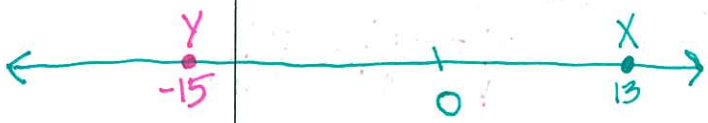
6. Find MN.

Distance and Absolute Value?

Score _ / 4

On a number line, point X is located at 13, point Y is located at -15, and point Z is located at -24.

7. Draw a number line.



*Label point Z

8. What is the length of XY?
$|X-Y|=$

9. What is the length of XZ?
(look @ #8)

10. How much longer is Segment XY than XZ?
(What is the difference in length?)

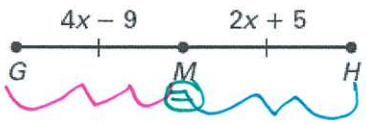
PUSH IT TO THE LIMIT.

Segment Bisector?

Score _ / 2

Midpoint: The point that splits a line segment into TWO EQUAL parts.

Point M is the midpoint of GH.



11. Find x.

$GM = MH$

12. Find the length of GH.

$GM + MH = GH$

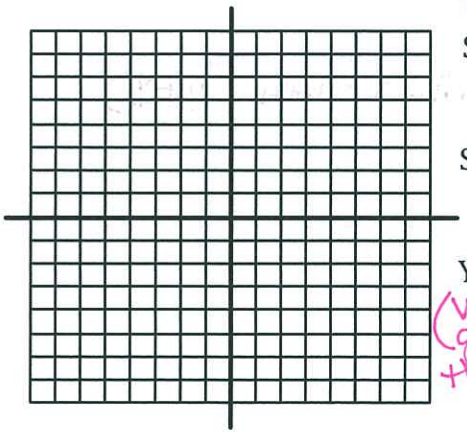
13) Graph the following equation: $y = 7x - 6$

$y = mx + b$

Slope: _____

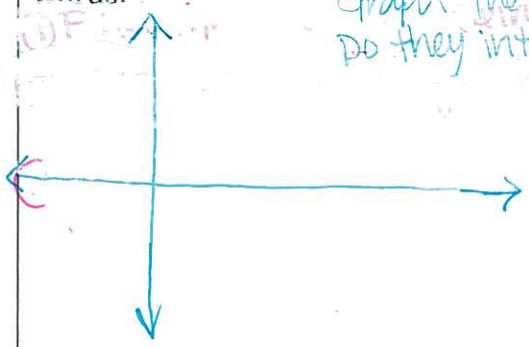
Sketch:

Y-Intercept: ___ (where the graph crosses the y-axis)



14) Carlos traveled from Chicago (3, 5) to Evanston (10, 19). At the same time, his sister, Alejandra, traveled from Skokie (11, 21) to Springfield (15, 29). Did the siblings' paths cross during their travels? *Justify* your answer through numbers ***and*** words!

Graph the two routes! Do they intersect?



15) Yvette has 5 more nickels (X) than dimes (Y). If the value of her money is $1.30, how many coins of each kind does she have?

X = nickels
Y = dimes

$Y + 5 = X$

Nickels + dimes = $1.30

$X + Y = \$1.30$

substitute

$(Y+5) + Y = X$

Simplify!

$Y + 5 = X$

$(\quad) + 5 = X$

$= X$

(Now plug "Y" back in to find "X")

Y = _____

16) If $y = -4x + 11$, and $3x + y = 9$, what is the value of y?

substitute

$3x + (-4x + 11) = 9$

simplify!

X = _____

(Now plug "X" back in to find "Y").

$Y = -4X + 11$

$Y = -4(\quad) + 11$

Y = _____

REVIEW YOUR NOTES!!!

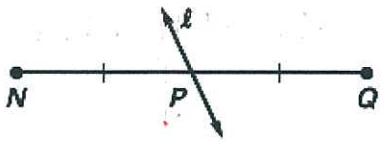
PUSH IT TO THE LIMIT.

Name: _____ TP: _____

Form A
HW#5: Segment Bisectors
Geometry

Failure to show work on all problems or use complete sentences will result in a LaSalle.

Use the diagram below for problems 1 – 4.



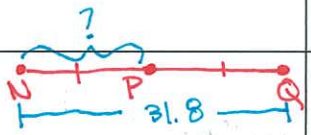
Intersects a line into two EQUAL parts.

The point that splits a line segment into TWO EQUAL parts.

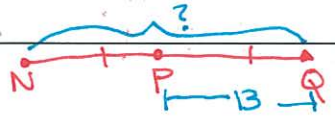
1. What is the name of the line that bisects segment NQ?

2. What is the name of the midpoint of NQ?

3. Find NP if $NQ = 31.8$ cm.



4. Find NQ if $PQ = 13$ in.



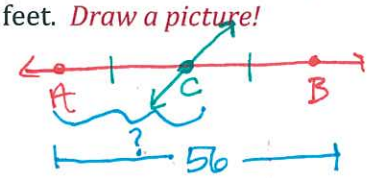
5. Find MF.

$\overline{EM} = \overline{MF}$

6. Find MH.

$\overline{GM} = \overline{MH}$

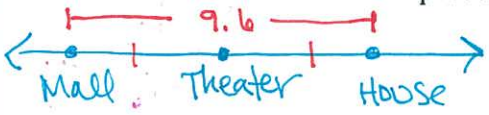
7. Line AB is bisected at point C. Find AC if $AB = 56$ feet. *Draw a picture!*



8. Line AB is bisected at point C. Find BC is if $AC = 12$ cm.
Draw a picture! You draw the picture this time?

9. Your house and the mall are 9.6 miles apart on the same straight road. The movie theater is halfway between your house and the mall, on the same road.

a. Draw and label a sketch to represent this situation.



b. How far is your house from the movie theater?

Mall, Theater = Theater, House

10. Which point represents the midpoint of segment AB?

A. Point D
B. Point D and Point C
C. Point C
D. Point E

11. Find the midpoint of a segment on a number line with coordinates -12 and 32. Draw the number line!

A. -44
B. 10
C. 20
D. 22

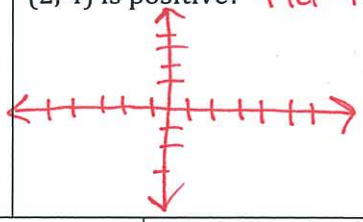
PUSH IT TO THE LIMIT.

$\frac{y_2 - y_1}{x_2 - x_1}$

12. A line passes through point A(9,4) and point B(17, 6). What is the slope?

*Label x_1 y_1 x_2 y_2 & substitute!

13. Without calculating the slope, how can you tell that the slope of the line that passes through the points (- 5, -3) and (2, 4) is positive? Plot the points & explain in a sentence.



14. **Challenge. You must *attempt* to solve for x!**

$(4, y)$ and $(7, -6)$; slope: -4

x_1 y_1 x_2 y_2 $m = -4$

$\frac{y_2 - y_1}{x_2 - x_1} = \frac{m}{1}$

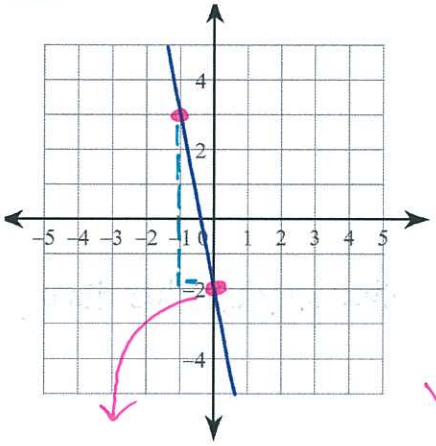
*Substitute & cross-multiply!

15. If S(-2, 1), T(-12, 11), and U(-6, -1), which line has the smallest (*hint: flattest)* slope: TU, ST, or SU? *Explain* how you know.

T(-12,11) U(-6,-1) | S(-2,1) T(-12,11) | S(-2,1) (-6,-1) U

Explanation:

16. Write the equation of this graph in slope- intercept form.

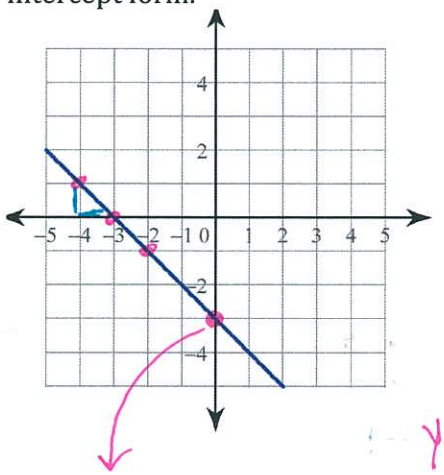


y=mx+b

Y-Int: ___ / Slope: ___ / Equation: _____

(- or +?)

17. Write the equation of this graph in slope-intercept form.



y=mx+b

Y-Int: ___ / Slope: ___ / Equation: _____

(- or +?)

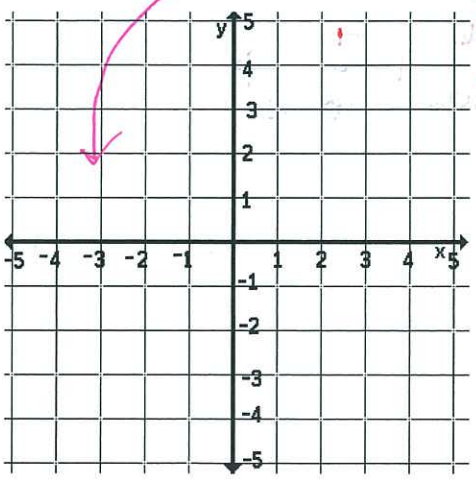
18. **ERROR ANALYSIS**!!! (Write in complete sentences) Describe and correct the error in calculating the slope of the line passing though the points (5, 3) and (2, 6).

$m = \frac{6-3}{5-2} = \frac{3}{3} = 1$

$\frac{y_2 - y_1}{x_2 - x_1}$

x_1 x_2 y_2

19. Graph the equation of the line that intersects the coordinate (-3, -1) and has a slope of $\frac{1}{4}$.



Up 1, Right 4

PUSH IT TO THE LIMIT.